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## SCIENTIFIC PROGRAM-MAKING IN THE CENTRAL HIGH SCHOOL OF GRAND RAPIDS, MICHIGAN

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ALICE M. JAMES  
Assistant Principal

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The usual method of making out a general program for the school and allowing pupils to choose for themselves their teachers and their hours of recitations was followed in our school until a few years ago. By this practice at least two weeks of the most valuable time of the whole semester, the two weeks at the beginning of the semester, were almost wasted by the necessary readjustments of pupils' daily schedules. With the choice of teachers and of hours of recitations in the hands of the pupils the classes of the most popular teachers, unless these classes came the last hour of the day, were full to overflowing, while those of the less popular, but possibly equally as good, teachers were nearly, if not quite, without students. Naturally most of this readjustment fell to me as assistant principal, and finally, after much hard thinking, I hit upon a scheme which has evolved into our present plan—a plan which has the hearty co-operation of every teacher and of every thoughtful pupil in the school, a plan which takes for its execution one day of the old semester instead of two weeks of the new one, and also a plan which can be adapted to any school, whether it is administered on the basis of large or of small session rooms, with or without heads of departments.

Our school is organized on the basis of principal, assistant principal, six session-room teachers, each having charge of two hundred or more pupils, heads of departments, and classroom teachers. In making the program for the semester each one of these separate divisions of teachers has a share.

The session-room teacher is responsible for the careful guidance of each pupil in his choice of studies. This latter work is of the greatest importance and takes more of this teacher's time than do

all of his other duties put together, though these duties are by no means inconsiderable. Beginning with the tenth grade, our session-room teachers work out with each pupil, subject to change, a sequence of studies for the remainder of his course. The following is a bona fide blank illustrating this phase of the work:

## COMPLETE PLAN OF WORK

Name.... AYERS, JOHN.....Course.... LITERARY.....

hrs.		hrs.		hrs.		hrs.		hrs.	
	Eng. 1 Math. 1 Lat. 1 Hist. 1	20	Eng. 2 Math. 2 Lat. 2 Hist. 2	40	Eng. 3 Math. 3 Lat. 3 Bot. 1	60	Eng. 4 Lat. 4 Bot. 2	75	
hrs.		hrs.		hrs.		hrs.		hrs.	Units
	Eng. 5 Math. 4  Hist. A  Span. A	95	Eng. 6 Math. 5  Hist. B  Span. B	115	Eng. 7 Physics 1  Hist. 7  Span. C	135	Eng. 8 Physics 2  Hist. 8  Span. D	155	Eng. 4 Math. 2½ Lat. 2 Hist. 3 Span. 2 Sci. 2  15½

NOTE.—Univ. of Mich. Undecided between Engineering and Medicine.

Soon after the middle of the semester, sometimes even before that, the session-room teacher begins conferences with each pupil in his charge as to his selection of subjects for the ensuing term. After this conference each pupil is given a blank like the accompanying, which is filled out in ink and returned to the session-room teacher. These blanks are also sent to all pupils of other schools tributary to the Central, who expect to enter the Central for the first time at the beginning of the new term. These are made out under the direction of the teachers in these other schools. Notice that the same John Ayers has evidently proved a weak student in mathematics; has decided to put science in its place for the remainder of his course; will therefore probably decide on medicine for his life-work.

Monday or Tuesday of the week before the ending of the semester each teacher in the school marks these plans of work for

every pupil in her classes, in the columns P, C, N, or D—P for “passed”; C for “conditioned”; N for “not passed”; D for “doubtful.” On Wednesday of the same week each session-room teacher reports to the assistant principal, on blanks furnished from the office for that purpose, the number of pupils in his session room

#### PLAN OF WORK

Name....AYERS, JOHN.....  
 .....Grade.....Class.....Course  
 For Term Ending....Jan. 26, 1917.....

#### STUDIES OF PRESENT TERM

Teacher	Subject	Grade	P	C	N	D
Miss Clay	Eng.	6				
Mr. Wilcox	Math.	4				
Miss Stout	Hist.	A				
Miss Elliott	Span.	A				
.....	.....	.....				
.....	.....	.....				

#### STUDIES PROPOSED

.....  
 English 7 .....  
 Mathematics 4 .....  
 History B.....  
 Spanish B.....  
 .....  
 \*.....Grade.....Class.....Course  
 For Term Ending.....

\*To be filled out by session-room teacher.

who will be in each grade of each subject in the new semester, and also reports the number of doubtfuls in each subject. These numbers are compiled in the office. The heads of departments, who have already made out a tentative program for their respective departments, hand to the assistant principal a revised program based on these final numbers.

On Thursday the principal and his assistant sit down with these tentative programs to the business of making a complete program for the school; as on Thursday the semester's examinations also begin, it is possible to secure the necessary interviews with individual teachers with regard to various details of the program without seriously hampering the work of the school.

By the next Wednesday, the Wednesday of the last week of the semester, the program is complete, and the assistant principal, aided by the heads of departments, has prepared class lists according to the following blank:

Subj., English 7..... Hr. 1..	Subj., English 7..... Hr. 1..	Subj., English 8..... Hr. 2..
Tr. Miss ..... R. 222..... S.R. ....	Tr. Miss Ransom ..... R. 234..... S.R. ....	Tr. Mr. Jones ..... R. 665..... S.R. ....

The teachers have corrected the standings marked "D," so that the "Plan of Work" and "Class Certificate" for each pupil is complete. For example, that of John Ayers reads as follows:

#### PLAN OF WORK

Name.... AYERS, JOHN.....  
..... Grade..... Class..... Course  
For Term Ending.... Jan. 26, 1917.....

#### STUDIES OF PRESENT TERM

Teacher	Subject	Grade	P	C	N	D
Miss Clay	Eng.	6	P			
Mr. Wilcox	Math.	4			N	
Miss Stout	Hist.	A	P			
Miss Elliott	Span.	A	P			
.....	.....	.....				
.....	.....	.....				

#### STUDIES PROPOSED

.....  
English 7.....  
Mathematics 4.....  
History B.....  
Spanish B.....  
.....  
\*..... Grade..... Class..... Course  
For Term Ending.... Jan. 26, 1917.....

\*To be filled out by session-room teacher.

CLASS CERTIFICATE

Name . . . . AYERS, JOHN . . . . .

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This slip indicates the studies to which the student is entitled and mustb  
presented to each teacher on the first day of the semester.

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N.B.—Copy exactly, and in the same order, under “Studies Proposed” all  
that you have under “Studies Proposed” on “Plan of Work” blank.

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STUDIES PROPOSED

English 7 . . . . .  
Mathematics 4 . . . . .  
History B . . . . .  
Spanish B . . . . .  
. . . . .  
. . . . .  
. . . . .  
. . . . . Grade . . . . . Class . . . . . Course  
For Term Ending . . . Jan. 26, 1917 . . . . .

Each of the fifty-odd teachers has been informed by a circular  
similar to the following of his exact place and his particular duty  
in the next business before the faculty—that of making out a  
schedule of classes for each one of the twelve hundred and more  
pupils in school.

Thursday, January 25  
Making Programs  
8:30 Sharp

Room 106 MR. SNELL

English . . . . . MISS CLAY  
History and Music . . . . . MISS STOUT  
Mathematics and Bookkeeping . . . . . MISS ELLIOTT  
Languages and Manual Training . . . . . MISS WARING  
Science and Drawing . . . . . MISS POWERS  
Writing on board . . . . . MR. BRADFORD, A.M.  
MR. WILCOX, P.M.

The next day, Thursday, the last day but one of the semester,  
this work is begun at 8:30 A.M. The teachers who are to assist

Mr. Snell in Session Room 106 assemble in that room, secure and arrange their class lists of English, history, and so forth. Mr. Snell has ready the pile of "Plans of Work" alphabetically arranged, and the work begins, proceeding as follows:

1. Mr. Snell calls out the name on the first plan, "John Ayers."

2. Mr. Bradford writes the name on the board, or, if each teacher has been provided with a numbered alphabetical list of the names of all of the pupils in Mr. Snell's session room, with "John Ayers" as number "1," writes on the board that number. Either method insures the correct spelling of the pupils' names as teachers write them on the class lists as indicated below.

3. While the name is being written on the board Mr. Snell reads from the plan, "English 7, Mathematics 4, History B, Spanish B." This is done that each teacher will have his attention called to the name and the subject and be ready without loss of time with his assignment.

4. Miss Clay, who has the English lists in charge says, "English 7, 1-222," meaning that John Ayers will have for his recitation hour for this grade of English the first hour of the school day, in Room 222.

5. Miss Clay writes the name of John Ayers on the class list to which she has assigned him.

6. Mr. Snell writes after English 7 on the "Plan of Work," "1-222." And so on through the list of studies on the proposed plan.

When John Ayers' schedule is finished it reads as follows:

English 7.....	1-222
Mathematics 4.....	2-334
History B.....	4-214
Spanish B.....	6-116

Each of Mr. Snell's pupils, numbering 225 or more, has his schedule made out in a similar fashion, and all other session-room teachers in the building are at the same time working with their groups of teachers in the same way. The teachers who have the class lists see that the sections are kept as nearly even in numbers

as possible. The class lists in English 7 will read something as follows:

Subj. English 7 . . . Hr. 1 . . . .	Subj. English 7 . . . Hr. 2 . . . .	Subj. . . . . Hr. . . .
Tr. Miss Clay . . . . .	Tr. Miss Hayes . . . . .	Tr. . . . .
R. 222 . . . . . S.R. 106 . . .	R. 234 . . . . . S.R. 106 . . .	R. . . . . S.R. . . .
John Ayers Alice Ames Henry Ball Carrie Comstock Henrietta Moon	Julia Adams Mary Hollister Sarah Smith Mary Whelan	

As the work in each session room is finished all teachers' lists are brought to the office. On Friday, which is clearing-up day for all sorts of things, the heads of departments sort and hand each teacher her lists; the session-room teachers see that the daily schedule on each class certificate is an exact copy of that on the "Plan of Work"; all reports of every kind are checked over, and in fact each teacher does everything that should be done to finish up the term's work before starting a new one.

On the following Monday, the first day of the new semester, we come together ready to start all classes, each with its proper assignment of pupils. Every pupil is given his "Class Certificate" by his session-room teacher at the very beginning of the day, the session-room teacher retaining the "Plan of Work," which becomes a tentative program for that pupil.

The classroom teacher refuses to accept a pupil who comes to her class unless his certificate and her list agree. No more classes of forty-five for Miss King and at the same hour only seven for Miss Allen are found. The prospect of changes in the personnel of the class is so slight that lesson assignments may safely be made on the first day and a prepared recitation expected on the second day of the semester.

Out of the one thousand three hundred students there may be from seventy-five to one hundred whose plans need some adjusting. Necessarily there are more of these changes to be made after the long summer vacation than at the mid-year. This is because pupils often present credit for work done during the summer. For example, John Ayers, marked to repeat Mathematics 4, may



have obtained permission to tutor in that subject and succeeded in obtaining from his tutor the recommendation to try Mathematics 5.

It is quite possible that the plan as outlined may seem cumbersome to those unfamiliar with its execution, and it may perhaps strike the uninitiated that it calls for an immense amount of work and that a great deal of time must be consumed in the making of the schedules for the students. To the first objection the answer can be made that it is found to be perfectly simple in its execution from beginning to end. As to the amount of work required, it is impossible to deny that in its execution there is a great deal of work on the part of each one of the faculty; but it is work for which each one receives a return, as it is much less nerve-racking and wearisome than our former method. As to the time required for making students' schedules, the first time a body of teachers attempts this the time required will probably be two days. So well does the plan work with our faculty that almost without exception the schedules for our entire school of over thirteen hundred students are made out in about four hours—and not one teacher in our school would go back to anything approaching the old method of program-making.